

Date: Monday, 7/30/2007 1:53:57 PM
User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: SADDLE BILLET
Job Number	: 33792		
Estimate Number	: 10033		
P.O. Number	: <i>N/A</i>	Part Number	: D6101003
This Issue	: 7/30/2007 S.O. No. : <i>N/A</i>	Drawing Number	: D6101 REV A
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: <i>N/A</i> Type : MACHINED PARTS	Drawing Revision	: A
Previous Run	: 33496	Material	: <i>N/A</i>
Written By	: <i>[Signature]</i>	Due Date	: 8/20/2007
Checked & Approved By	: <i>[Signature]</i> 07.07.30	Qty:	80 Um: Each
Comment	: Est. A: 01.05.04 New Issue EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: *4306* *CL07108107* *(80)*

a) Description: Aluminum billet

b) 7.875" x 6.250" x 2.00" thick

c) Tolerance on all dimensions are +0.030"/-0.000"

d) Grain direction along 7.875" length

e) Material: 7075-T7351 (QQ-A-250/12)

f) Material certification required

2.0	D6101003P	7075-T7351 2X6.25X7.875
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 80.0000 Each(s)

7075-T7351 2X6.25X7.875

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure material certification is attached

CL07108123 *(80)*

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

Ensure Material certification comply to Dwg D6101

J.L 07/08/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: 15 Date: 07/08/07
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 7/30/2007 1:53:57 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE BILLET

Job Number: 33792

Part Number: D6101003

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

C207108123 (80)

6.0

QC21

FINAL INSPECTION/W/O RELEASE



(80)

Comment: FINAL INSPECTION/W/O RELEASE

D08108107

Job Completion



U 07.08.27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

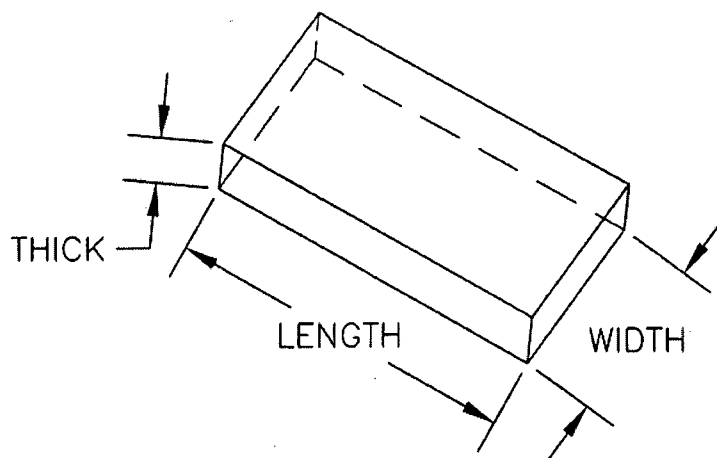
NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>JS</i>	DRAWING NO. D6101	Rev. A SHEET 1 OF 1
DATE 01.03.30		TITLE SADDLE BILLET, 7075	SCALE NTS
A	01.03.30	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
01.04.23 *CP*



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length

STOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 33792

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31 555041 985260 01

A.M. CASTLE & Co. (Canada) Inc.

A.M. CASTLE & Co. (Canada) Inc.

EXPÉDIÉ 22 AOÛT 2007

REQUISITION CLIENT-CUSTOMER REQUISITION NO.

NO. COM. CLIENT-CUST. ORD. NO.

COMPTÉ-ACCT.

VEND.-SLS

TERR.

EXPÉDIÉ PAR-SHIP VIA

4306

91037

200

40

TRUCK

MANITOULIN

PURCHASING AGENT

TELEPHONE

H/C

TAXE

NO. COM ORD

REGION LIVRAISON-DEL ZONE

F.A.B.-F.O.B.

BILL

NO. FEVILE/EMBALLAGE-B/L NUMBER

LINDA LACELLE

613 632-3336

9 0

1

C/C

PREPAID

VRE A-SHIP TO:

VENDU A-SOLD TO:

DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

INFORMATION CRÉDIT-CREDIT INFORMATION

R2C SEE FRANCE STATUS

ROUTE

01-NL-08/

31-NL-08/

INSTRUCTIONS/LIVRAISON-DELIVERY

INQ-058568

INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.)

INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.)

DESCRIPTION - ITEM 1

2.0000 PLATE 7075-T7351 ALUM 6.25" X 7.875"

BLACK W/RED STRIPE

CERTIFICATE OF CONFORMANCE

INSTRUCTIONS

A.M. Castle & Co. certifies that the material(s) supplied under this document will meet and conform to the specifications of the product(s) described hereon.

A.M. Castle & Co. (Canada) Inc.

WEIGHT FOR SHIPPING PURPOSES ONLY. SEE INVOICES FOR ACCURATE BILLING WEIGHT. PLEASE SIGN AND DATE DRIVER'S COPY FOR RECEIPT OF MATERIAL AND, IF CHECKED, TEST REPORTS.

TOL: +.030"/-.000"

THICKNESS TOL.: +.030"/-.000"

GRAIN TO RUN ALONG 7.875"

PRIOR DIST/ORD: 01 985260

COULÉE INFO-HEAT INFO QTE-QTY

337471

64

369178A9

16

INSTRUCTIONS (CONT'D.)

0267/08/23

80x6.25"x7.875"

QTE/UNITE COM.-ORDERED

PCES/COM-ORD

POIDS COM.-WT. ORDERED

80

PCES

796

BALLOTS-BUNDLES

PCES/PD EXP. SHP.

POIDS EXP.-WT. SHIPPED

FORME-SHAPE I.A.C.

6857

ENT.V

DESCRIPTION - ITEM 2

TERMS AND CONDITIONS
OF SALE

SEE DISCLAIMERS AND LIMITATIONS
ON THE REVERSE SIDE

INSTRUCTIONS

1 Box

COULÉE INFO-HEAT INFO QTE-QTY

INSTRUCTIONS (CONT'D.)

QTE/UNITE COM.-ORDERED

PCES/COM-ORD

POIDS COM.-WT. ORDERED

BALLOTS-BUNDLES

PCES/PD EXP. SHP.

POIDS EXP.-WT. SHIPPED

FORME-SHAPE I.A.C.

ENT.V

DESCRIPTION - ITEM 3

ALL EXCEPTIONS FOR SHORTAGE OR DAMAGE MUST BE NOTED ON THE DRIVER COPY & CUSTOMER COPY OF THE DELIVERY RECEIPTS & SIGNED BY THE DRIVER & CUSTOMER. COPY OF SUCH RECEIPT PROPERLY NOTED MUST BE SUBMITTED WITHIN 10 DAYS WHEN CREDIT IS REQUESTED.

INSTRUCTIONS

COULÉE INFO-HEAT INFO QTE-QTY

INSTRUCTIONS (CONT'D.)

QTE/UNITE COM.-ORDERED

PCES/COM-ORD

POIDS COM.-WT. ORDERED

BALLOTS-BUNDLES

PCES/PD EXP. SHP.

POIDS EXP.-WT. SHIPPED

FORME-SHAPE I.A.C.

ENT.V

NOM (LETRE MOULEE)-NAME (PRINT ONLY)

RECU PAR-RECEIVED BY

DATE RECU-
DATE RECEIVEDFEVILE D'EMBALLAGE - PACKING SLIP
F&N

ALCAN
ROLLED PRODUCTS

CERTIFIED TEST REPORT

RAVENSWOOD, WV 26164 USA

A M CASTLE & CO
3400 NO WOLF ROAD
FRANKLIN PARK IL

60131

A M CASTLE & CO
3400 NO WOLF ROAD
FRANKLIN PARK IL

60131

A M CASTLE 974503 1512 INCLUSION SERIAL#: 20070430974503 PAGE 1 CF 2

CUSTOMER PURCHASE ORDER NO. & ITEM				ALCAN ORDER NO.	
01-83993				113-581105	
ALLOY	CLAD.	TEMPER	GAUGE	WIDTH	LENGTH
7075	00	T7351	2.00000	48.500	144.500
ITEM ORDERED					
DIST. AEROSPACE/MILITARY SPEC PLATE, SAWED MILL 6857					
CUSTOMER SPECIFICATION					
AMS-QQ-A-250/12					
PART NUMBER			B/L NUMBER	DATE SHIPPED	
			974500	04/30/07	
WEIGHT SHIPPED		NO. OF PIECES	GOVT. CONTRACT NO.		
5,720		4			

CERTIFICATION

"ALCAN Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on ALCAN Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."

ALCAN ROLLED PRODUCTS

P.O. BOX 68

RAVENSWOOD, WV 26164 USA

LeDonna B. Smith - Quality Manager

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I.		YIELD STRENGTH K.S.I.		ELONGATION %		COND	IACS									
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN	MAX									
337471	LT	2	***** T7351 71.9	73.5	60.8	63.7	***** 11.5	11.5	40.5	41.6									
<p>ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS</p> <p>MIL-STD-2154 100%SONIC TESTED MINUS DEAD ZONE CLASS A</p> <p>ALSO CONFORMS TO AMS 4078E, ASTM B209-04 & ASTM B-594</p> <p>ALSO CONFORMS TO BSS 7055 CL A SONIC</p> <p>CASTLE METALS CORP DATE RCVD <u>5-4-07</u> IAC <u>6857</u> APPROVED BY <u>LC</u></p>																			
CHEM COMP	ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		ZINC		TITANIUM		OTHERS	
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	ACH	TOTAL
	SEE ACTUAL CHEMICAL COMPOSITION																		
ALUMINUM REMAINDER																			

SHIP TO:

A M CASTLE & CO
3050 SOUTH HYDRAULIC
WICHITA, KS 67216

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99216

Phone: (800) 367-2586

CERTIFIED TEST REPORT

SOLD TO:

AM CASTLE & CO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

Serial Number

4099318

CUSTOMER PO NUMBER: 23-84414		WORK PACKAGE:	CUSTOMER PART NUMBER: 6857 A97075-60		SHIP RUNLOAD ID: 100991/13	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1049381	LINE ITEM: 1	SHIP DATE: 7-JUN-2007	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: MILL FINISH PLATE
WEIGHT SHIPPED: 7194 LB	QUANTITY: 5 PCS EST.	B/L NUMBER: 2013158	GAUGE: 2.0000 IN	WIDTH: 48.500 IN	LENGTH: 144.500 IN	

Certified Specifications

AMS 4078/RevF
ASTM B 209/Rev06
BSS 7055/RevA
DPS 4.713/RevN/AmdAF
GSS16100/RevG

AMS-QQ-A-250/12
ASTM B 594/Rev06
CMMP 025/RevR
EAC MS1011/RevD
MMS 159/RevN

AMS-STD-2154
BAC 5439/RevH
CSTI 006/RevC
GAMPS 9101/RevB
PS 21211/RevK

Test Code: 4297

Test Results

Lot: 369178A9 Cast 976

Drop 49

Ingot 4

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.4 : 73.5 (506 : 507)	62.5 : 62.6 (431 : 432)	11.3 : 11.3

Conductivity %IACS :	41.4 Min	41.6 Max
(MS/M) :	24.0 Min	24.1 Max

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.11	0.23	1.49	0.02	2.40	0.19	5.60	0.03	0.01	0.01	TOT 0.04

ALCAN
ROLLED PRODUCTSCERTIFIED TEST REPORT
RAVENSWOOD, WV 26164 USAA M CASTLE & CO
3400 NO WOLF ROAD
FRANKLIN PARK IL

60131

A M CASTLE & CO
3400 NO WOLF ROAD
FRANKLIN PARK IL

60131

A M CASTLE 974503 1512

INCLUSION SERIAL#: 20070430974503 PAGE 2 OF 2

CUSTOMER PURCHASE ORDER NO. & ITEM

01-113993

ALCAN ORDER NO.

113-581105

ALLOY	CLAD	TEMPER	GAUGE	WIDTH	LENGTH
7075	00	T7351	2.00000	48.500	144.500

ITEM ORDERED

DIST. AEROSPACE/MILITARY
SPEC. PLATE, SAWED MILL

CUSTOMER SPECIFICATION

AMS-QQ-A-250/12

PART NUMBER

B/L NUMBER

974500

DATE SHIPPED

04/30/07

WEIGHT SHIPPED

5,720

NO. OF PIECES

4

GOVT. CONTRACT NO.

CERTIFICATION

"ALCAN Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on ALCAN Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."

ALCAN ROLLED PRODUCTS

P.O. BOX 68

RAVENSWOOD, WV 26164 USA

LaDonna B. Smith - Quality Manager

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I.		YIELD STRENGTH K.S.I.		ELONGATION %		COND % IACS										
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.									
ACTUAL CHEMICAL COMPOSITION																			
337471 C SI= 0.06 FE= 0.18 CU= 1.40 MN= 0.05 MG= 2.55 CR= 0.19 ZN= 5.63 TI= 0.02 OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER																			
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.																			
CHEMISTRY BY OES: ARKSPARK																			
CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT.																			
WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399.																			
WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557.																			
"END OF CERTIFICATION"																			
CHEM COMP	ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		ZINC		TITANIUM		OTHERS	
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	EACH MAX.	TOTAL MAX.
		SEE ACTUAL CHEMICAL COMPOSITION																	
ALUMINUM REMAINDER																			

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4099318

Lot: 404718A9 Cast 976 Drop 70 Ingot 2

Tensile:	Temper T7351	Dir / # Tests LT / 2 (Min:Max)	Ultimate KSI (MPA) 72.8 : 72.9 (502 : 503)	Yield KSI (MPA) 61.1 : 61.5 (421 : 424)	Elongation % 11.3 : 11.3
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Conductivity %IACS :	41.3 Min	41.6 Max
(MS/M) :	24.0 Min	24.1 Max

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	
Actual	0.10	0.20	1.46	0.01	2.47	0.20	5.57	0.02	0.01	0.00	TOT	0.04

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
70°5 MIN	0.00	0.00	1.20	0.00	2.10	0.18	5.10	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.00	0.30	2.90	0.28	6.10	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

Metal represented by this test report was immersion ultrasonically tested from one side and meets the Class A and Class B requirements of all specifications referenced on this test report.

CERTIFICATION

KAISER ALUMINUM & CHEMICAL CORPORATION (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM & CHEMICAL CORPORATION LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. 160-9001:2000 CERTIFIED

BILL F OYNOR, LABORATORIES SUPERVISOR

